

Claims

1. A method for producing attached parts for a motor vehicle, for example doors, dampers, mudguards formed by at least one internal sheet (1) and at least one external sheet (2), said sheets being produced separately from each other and subsequently, joined together at their edges, **characterized in that**
 - a) the external sheet (2) is inwardly bent at sides (3, 4) visible from outside in the edge area of the attached part, and that the pertaining edge areas (14 – 19) of the internal sheet (1) are pushed against the bend (7) of the external sheet (2) to minimize the gap, and that the internal sheet (1) and external sheet (2) are welded together by a laser beam (20) directed into the gap between the edge areas (14 - 19) of the internal sheet (1) and the bend (7) of the external sheet (2), and
 - b) the edges of the external sheet (2) and internal sheet (1) are basically laid on each other in parallel to the component plane at one side at least or at all invisible sides (5, 6) in the edge area of the attached part lying opposite to the visible area(s) and are laser-welded in an overlap joint or laser-welded or laser-soldered in the fillet of the overlapping parts.
2. A method according to Claim 1, **characterized in that** the visible edge area of said external sheet (2) is inwardly bent at the sill side (3) and/or lock side (4) of a door for motor vehicles.
3. A method according to any of the preceding Claims 1 or 2, **characterized in that** the invisible edge areas of the hinge side (5) and/or of the window side (6) of the door external sheet (2) are connected with the edge areas (14-19) of the door internal sheet (1) in the overlap joint by laser welding or in the fillet (11, 12) of the overlapping edge areas (8,9) by laser welding or laser soldering.
4. A method according to any of the preceding Claims 1 or 3, **characterized in that** the bend (7) of the external sheet (2) is arranged at an angle to the external sheet (2) being greater than or equal to 90°.

5. A method according to any of the preceding claims, **characterized in that** in the visible area where the external sheet (2) is inwardly bent, the internal sheet (1), too, is wholly or partly bent inwardly or outwardly in an edge area (14 to 17).

5 6. A method according to Claim 5, **characterized in that** the bend (7) of the external sheet (2) forms an acute angle to the bend (14, 15) of the internal sheet (1).

7. A method according to any of the preceding claims 5 or 6, **characterized in that** the edge areas (16, 17) of the internal sheet are inwardly or outwardly bent by up to 180°.

10 8. A method according to any of the preceding claims, **characterized in that** the edge area (18) of the internal sheet (1) is arranged in parallel to the external sheet (2) and that the front side (19) of the edge of the internal sheet (1) is so bevelled that it forms an acute angle to the bend (7) of the external sheet (2).

15 9. An attached part for a motor vehicle, produced according to a method pursuant to any of the preceding claims and comprised of at least one internal sheet (1) and at least one external sheet (2), which are produced separately from each other and subsequently joined at the edges, **characterized in that** the attached part is configured as described
20 in Claims 1 to 8.